Remarks

By the foregoing Amendment, claims 1-8 are cancelled. Applicant respectfully submits that entry of this Response is proper as it makes no amendments other than to cancel claims. Applicant respectfully asks the Examiner to reconsider the rejection of claims 9-13 in view of the below Remarks.

The Examiner has rejected claims 1-5 and 8 under 35 U.S.C. §102(b) as anticipated by Chen, U.S. Patent No. 6,241,657. These claims have been cancelled.

The Examiner has rejected independent claim 9 (and dependent claims 10-13) under 35 U.S.C. 35 U.S.C. §103 as obvious over Chen at the time of the invention in view of Dohi, U.S. Patent Application No. 2002/0022767. Applicant respectfully requests reconsideration of this rejection for the reasons set forth below.

As the Examiner has noted, Chen does not anticipate claim 9 because all of the elements in this claim are not shown in this reference. Specifically, Chen does not disclose a method for improving a diagnostic or surgical procedure involving a variable direction of view endoscope with a variable line of sight acquiring configuration data of an internal view changing mechanism of the endoscope and displaying representations of the subsurface structure and the endoscopic line of sight in their correct relative spatial relationship based on this configuration data, along with volumetric scan data and endoscope position data.

Additionally, Applicant submits that claim 9 is not obvious over Chen, in light of Dohi, for several reasons. First, Applicant notes that the Examiner has a couple of times asserted that the changeable internal configuration of the Dohi scope "could be" measured with Chen's tracking system 97. *See* Final Action, Item 09. Applicant respectfully notes that the "mere fact that references *can be* combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination." MPEP 2143.01 (citing *In re Mills*, 916 F.2d 680, 682, 16 USPQ2d 1430, 1432 (Fed. Cir. 1990) (fact that prior art "may be *capable* of being modified to run the way the apparatus is claimed, there must be some suggestion or motivation in the reference to do so.") (emphasis added). In order for the combination to be proper, there must be some independent suggestion in the art, and this suggestion cannot come from the applicant's disclosure. *See In re Vaeck*, 947 F.2d 488, 493, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991).

Here, there is no suggestion in the prior art to make the combination necessary to arrive at invention recited in claim 9. The Examiner has stated that it would have been obvious to one in the art that Chen's endoscope accommodate the particulars of an endoscope disclosed by Dohi because Dohi's endoscope allows for "[provision of] various endoscope images in good quality without the movement or bending of an endoscope." *See* Final Action, Item 10. Applicant respectfully points out that Dohi's stated objective for its own design (i.e., having an internal view changing mechanism)

does not provide any suggestion to combine such a design with a tracking system such as Chen's to acquire and use the configuration data as claimed.

Applicant respectfully submits that the Examiner has located individual elements appearing in two different references, and has then combined the references in order to make a change not reasonably suggested by those references. Applicant respectfully submits that it is not appropriate to piece together the claimed invention, using the Applicant's disclosure as a roadmap, in this fashion. As the Court of Appeals for the Federal Circuit has recently reaffirmed and explained:

> [I]n making the assessment of differences between the prior art and the claimed subject matter, section 103 specifically requires consideration of the claimed invention "as a whole." Inventions typically are new combinations of existing principles or features. *Envtl. Designs, Ltd. v. Union Oil Co.,* 713 F.2d 693, 698 (Fed.Cir.1983) (noting that "virtually all [inventions] are combinations of old elements"). The "as a whole" instruction in title 35 prevents evaluation of the invention part by part. Without this important requirement, an obviousness assessment might successfully break an invention into its component parts, then find a prior art reference corresponding to each component. *This line of reasoning would import hindsight into the obviousness determination by using the invention as a roadmap to find its prior art components. Further, this improper method would discount the value of combining various existing features or principles in a new way to achieve a new result--often the essence of invention.*

Princeton Biochemicals, Inc. v. Beckman Coulter, Inc., 411 F.3d 1332, 1337, 75 U.S.P.Q.2d 1051, 1054 (Fed. Cir. 2005) (citations omitted) (emphasis added).

Moreover, Applicant respectfully submits that these references actually teach away from such a combination. With respect to Dohi, even if there was some suggestion of using a tracking system to monitor the configuration of the internal

viewing changing mechanism, it is difficult to see how this reference would suggest to one skilled in the art to acquire *both* this internal configuration data *and endoscope position data* to use for displaying representations of the subsurface structure and the endoscopic line of sight in their correct relative spatial relationship, when the objective of Dohi is to acquire images of particular, focused areas *without moving or bending the scope*. See Dohi, Paragraphs 0008, 0010, 0055.

Additionally, Chen explicitly teaches against such a modification, as it specifically describes the advantage of being able to consider the scope and field of view software objects 90A, 90B as a single unit when being positioned within the 3-D computer models by maintaining a fixed relationship between the two. Specifically, Chen explains:

> It is important to recognize that, so long as the optical characteristics of endoscope 90 remain constant, the size and positional relationships between shaft software object 90A' and disk software object 90B' will also remain constant. As a result, it can sometimes be convenient to think of shaft software object 90A' and disk software object 90B' as behaving like a single unit, e.g., when positioning the software objects 90A' and 90B' within 3-D computer models.

Col.8, lns. 14-22. Accordingly, Chen actually teaches away from employing an internal view changing mechanism that would change the direction of view relative to the position of the scope itself.

Finally, even the above-described combination were made, one would still not arrive at the invention of claim 9, as this combination would still not disclose all the elements of claim 9. Even if an internal view changing mechanism were incorporated

into the Chen device, there is still no disclosure of "acquiring configuration data" of such a view changing mechanism, and displaying representations of the subsurface structure and the endoscopic line of sight in their correct relative spatial relationship based on this configuration data, as Chen only discloses a tracking system "adapted to monitor the position and orientation of an object in space and to generate output signals... representative of the spatial positioning and orientation of [the] endoscope." *See* Col.5, lns. 4-17. Even if a view changing mechanism were incorporated into the Chen design (which Applicant submits is improper), there would still be no suggestion to acquire configuration data of that mechanism with the tracking system 97 and use it for the proper display of the subsurface structure and the endoscopic line of sight, other than the fact that it *could be* done, which, as explained above, is simply impermissible hindsight.

For each of these reasons, Applicant respectfully submits that the invention recited in independent claim 9 is not obvious over Chen in light of Dohi.

It is respectfully submitted that claims 9-13, all of the claims remaining in the application, are in order for allowance, and early notice to that effect is respectfully requested.

Respectfully submitted,

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